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ABSTRACT

This report describes states' eligibility policies for developmentally delayed and at-risk children, aged birth to 3 years to be served under Part H of the Individuals with Disabilities Education Act (IDEA). The report is based on policy analysis of 49 states' eligibility policy documents. Results indicated that the wording in states' definitions of "developmentally delayed" and high probability or "established conditions" closely mirrored the federal statute. The definitions varied greatly, however, when the eligibility criteria were examined and compared. Of the 42 state policies that included specific criteria for determining eligibility under the developmentally delayed category, three approaches were used: test-based criteria only (N=16); use of professional judgment and/or documentation of atypical development only (N=4); or a combination of the test-based and non-test-based criteria (N=22). For the policies that included test-based criteria, the most frequently used type and level of criterion was a 25% delay in one or more areas of development (N=20). Forty-seven states defined established conditions in their eligibility policy. Of these, 39 included a list of specific conditions. Among these states, there was relatively little agreement as to which specific conditions constitute eligibility. Twenty states included at-risk children in their definitions, with 15 including children with both biological and environmental risk factors, four with only biological risk factors, and one with only environmental risk factors. Only six states used multiple risk factors to determine eligibility. (15 references) (Author/JDD)

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Carolina Institute for Child and Family Policy

PROGRESS TOWARD DEVELOPING A DEFINITION FOR DEVELOPMENTALLY DELAYED: REPORT #2

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2

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June, 1991

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EXECUTIVE SUMMARY

The purpose of this paper is to describe states' eligibility policies for developmentally delayed and at-risk children, aged birth to three, to be served under Part H of the Individuals with Disabilities Education Act (IDEA). State policy makers continue to make progress in the development of eligibility policy. The Carolina Policy Studies Program conducted a policy analysis of 49 states' eligibility policy documents. Results of this study indicated that the wording in state's definitions of "developmentally delayed" and high probability or "established conditions" closely mirrors the federal statute. The definitions varied greatly, however, when the eligibility criteria were examined and compared.

Of the 42 state policies that included specific criteria for determining eligibility under the developmentally delayed category, three approaches were used: test-based criteria only (N=16); use of professional judgment and/or documentation of atypical development only (N=4); or a combination of the test-based and non-test-based criteria (N=22). For the policies that included test-based criteria, the most frequently used type and level of criterion was a 25% delay in one or more areas of development (N=20).

Although it is heartening to see the increased number of states including a combination of quantitative and qualitative criteria to determine eligibility, still approximately one-third of the states continue to rely on test scores as their only means of determining eligibility. This reliance on test scores only is

problematic due to the psychometric properties of the tests themselves and the difficulty detecting some delays using traditional measures. Including non-test-based approaches such as the use of professional judgment seems to enhance the likelihood of identifying those children legitimately in need of services. However, professional judgment is only as good as the skills and qualifications of the person making that judgment. Therefore, strengths and weaknesses exist with both test-based and non-test-based approaches.

Forty-seven states defined established conditions in their eligibility policy. Thirty-nine of these states included a list of specific conditions in their definitions. Among these states, there was relatively little agreement as to which specific conditions constitute eligibility under this part of the legislation.

Currently, the inclusion of at-risk children in states' policy is the most tenuous. Twenty states included at-risk children in their definitions, but according to conversations with state Part H Coordinators, some state' policy makers are considering dropping this group of children from the definition due to revenue shortfalls. Of the states that included at-risk children in eligibility policy, 15 included children with <u>both</u> biological and environmental risk factors. Other states included children with <u>only</u> biological risk factors (N=4) or <u>only</u> environmental risk factors (N=1). All but six states relied on single risk factors, instead of multiple risk factors, to determine eligibility. Use of single risk factors will probably increase the cost of services, because more children are likely to

be identified through this approach than through an approach using multiple risk factors. Thus, an option for state policy makers who are committed to serving at-risk children would be to utilize a multiple risk factor approach in defining this group of children.

Eligibility policy for infants and toddlers to be served under Part H of IDEA continues to evolve. It is hoped that the information provided in this report will be helpful to policy makers and those concerned individuals who are involved in the process of developing, implementing, evaluating, and revising eligibility policies.

BACKGROUND

The purpose of this paper is to describe states' eligibility policies for developmentally delayed and at-risk children, aged birth to three. The legislation providing incentives for such policy was originally included under Part H of P.L. 99-457, and is now encompassed in the Individuals with Disabilities Education Act (1990) or P.L. 101-476. Thus, what has been referred to as Part H of P.L. 99-457 in the past is now Part H of IDEA and will be referred to as such in the remainder of this paper.

At this time, most states are engaged in the critical and all important process of developing policies related to defining the population to be served under Part H of IDEA. This process has not been an easy one for policy makers due to a multitude of factors which include the following: the complex and irregular development of children (O'Donnell, 1989); limited instruments to assess this age population (Simeonsson & Bailey, 1989); lack of knowledge concerning the linkage of social and biological conditions to developmental outcomes (Kochanek, Kabacoff, & Lipsitt, 1987); and lack of reliable prevalence data (Meisels & Wasik, 1990). These issues complicate the task of developing sound definitions for developmentally delayed and at-risk young children.

Even though the task is complex, states are required by law to have an approved definition of developmental delay in place in order to receive fourth-year funding. According to information obtained from the State Progress Scale (Harbin, Gallagher, & Lillie, in preparation), 15 states have received approval for their eligibility policy. The remaining states are still in the process of revising and finalizing draft definitions. This process of policy development is usually very dynamic: draft definitions are written, circulated for review, discussed, and then revised. This is a cyclical process that often continues through the development of several drafts.

State policy makers hope that through this participatory process of review and critique in policy development, states will develop sound policies which reflect current knowledge regarding best practices in formulating policies for serving young children with needs. Harbin (1990) has discussed three criteria for determining sound policy. Eligibility policy should be a) empirically based on research reflecting the field's most current knowledge; b) technically sound in regard to psychometric issues such as appropriate administration, scoring, and use of scores obtained from tests; and c) accurate in that it does not identify children as handicapped who are not (over-identification), nor fail to identify children who are handicapped and in need of special education and related services (under-identification). These criteria should be considered by state policy makers during their formulation of policies which define the population to be served.

PURPOSE OF STUDY

The purpose of this study was to analyze states' progress in developing definitions for infants and toddlers to be served under Part H of IDEA. This was the third analysis of states' policies conducted by the Carolina Policy Studies Program (CPSP). The first analysis reported by Harbin, Terry, and Daguio (1989) was based on 29 states' definitions, and the second analysis reported by Harbin, Gallagher, and Terry (1991) was based on 39 states' definitions. This third analysis was based on definitions from 49 states. Thus, the purpose of this report was to describe the contents of states' definitions for infants and toddlers to be served under Part H of IDEA. Two additional complementary reports will discuss how states' policies have changed over time and how the policies compare to criteria for sound eligibility policy.

METHOD

In order to examine states' policies regarding the development of a definition to comply with Part H of IDEA, a content analysis of states' definitions was conducted. As of February, 1991, 49 states had developed a definition and sent it to CPSP for analysis.

During the analysis of states' eligibility policy in November, 1990, discussions with Part H Coordinators indicated that several states were in the process of changing their definitions, as they were attempting to obtain policy approval and preparing their fourth year application to the Office of Special Education Programs (OSEP). Thus, concerted effort was made to obtain the most recent definition possible between October, 1990, and February, 1991. As part of this process, telephone calls were made to those states that had included the at-risk population in their written drafts. From these calls, information was obtained regarding the number of states in which policy makers were considering eliminating at-risk from their eligible population.

At this time, many of the policy documents analyzed by CPSP are still considered by the states as drafts, although some draft definitions are viewed by states as more near completion than others. Since the process of policy development is dynamic, these definitions are likely to continue to undergo other revisions. Within this revision process, policy makers may discuss changes to be made in the definition. For example, state policy makers may include at-risk children in their current draft definition, but because of state revenue shortfalls they may be considering excluding the at-risk population from the definition. However, no **official** change has been made in the status of the draft definition. These **discussed** changes can not be analyzed by CPSP until they are incorporated into a **written** policy document. Thus, the

data presented in the following section reflect the contents of **written state policy documents**.

The content analysis of the states' definitions addressed the following broad areas: (a) the criteria used to determine delay, (b) the criteria used to determine established conditions, and (c) the criteria used to determine which children are biologically and/or environmentally at-risk.

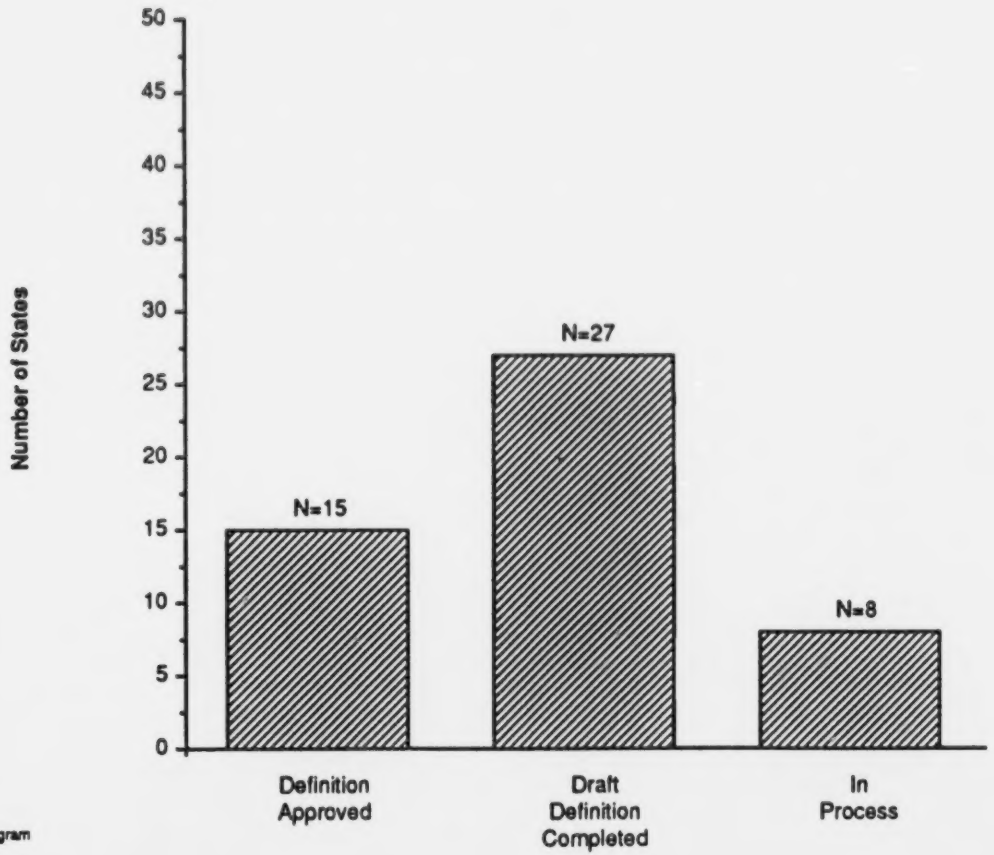
RESULTS

This section will present a description of various elements of states' eligibility policy. These elements include: the status of policy development; who is included in the definition; the approaches used to determine developmental delay; the level of delay required for eligibility; the criteria used to determine established conditions; and the criteria used to determine biological and environmental risk.

Policy Development

At the time of the first CPSP report (1989), states' status in developing a definition varied considerably. Although a few states had not yet begun writing definitions, many (N=28) had written a draft definition (Harbin, Terry, Daguio, 1989). As expected, states have now progressed through various steps in the process of developing the definition of developmentally delayed. Based on information obtained from the State Progress Scale (Harbin, Gallagher, & Lillie, in preparation), as of April 1991, 50 jurisdictions have written a definition. However, these definitions vary in their stages of completion. According to results of the Harbin et al. study, 15 jurisdictions have received approval for their definitions. Twenty-seven jurisdictions have completed their definitions, but have not received approval for their definitions from an official state body (e.g., Legislature, Executive Order, Commission, or State Board). The

Figure 1: Status of Definition, Part H of IDEA (50 Jurisdictions Reporting)



Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February 1991

remaining 8 jurisdictions are continuing to develop their definitions. Figure 1 presents a summary of the status of policy development.

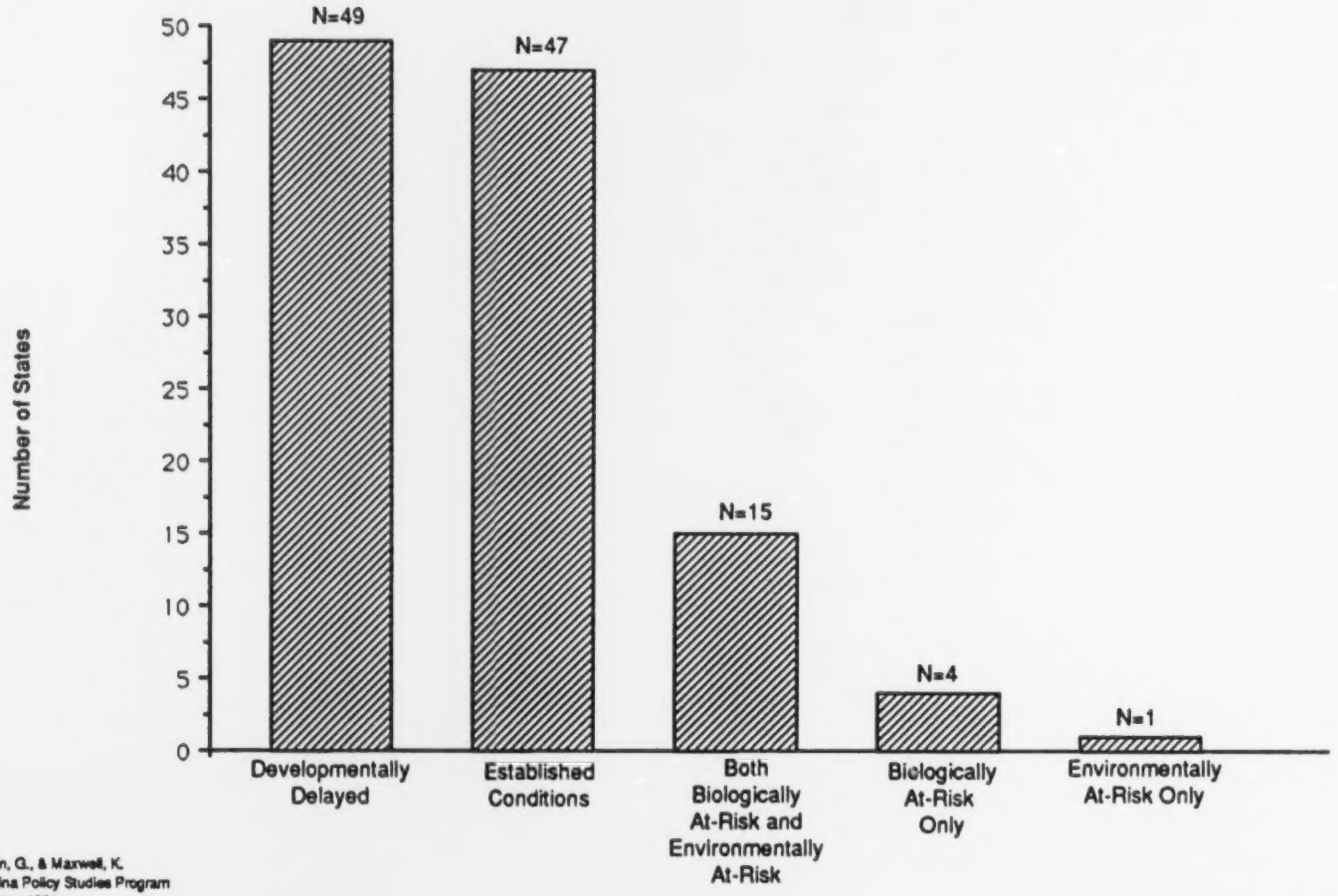
Who Is Included In The Definition?

As in our prior analyses, the wording in states' current definitions closely mirrors the federal statute. Part H of IDEA requires each participating state to serve infants and toddlers from birth through age 2 who "are experiencing developmental delays" or "have a diagnosed physical or mental condition which has a high probability of resulting in developmental delay" (IDEA of 1990, Section 1472 (1)). At the state's discretion, infants and toddlers "who are at-risk of having substantial developmental delays if early intervention services are not provided" **may** also be included in the definition (IDEA of 1990, Section 1472 (1)).

As indicated in Figure 2, of the 49 state definitions analyzed, all included developmentally delayed children. There were 47 states that included children with established conditions. The other 2 state definitions are worded in such a way that it is unclear whether the state policy makers intended to include children with established conditions.

At the time of the content analysis of policy documents, a total of 20 out of 49 states (41%) included children at-risk. Among these states including children at-risk for developmental delays, 4 states included <u>only</u> those children with biological factors which place them at-risk (e.g., intraventricular hemorrhage, low birthweight). There was 1 state that included <u>only</u> those children with environmental factors which place them at-risk (e.g., children of developmentally disabled parents). There were 15 states which included children with <u>both</u> biological and environmental factors which place them at-risk. Thus, 75% of the states that included at-risk children in their definitions have included <u>both</u> biological and environmental factors in their definitions of

Figure 2: Who Is Included In Definition (49 States Reporting)



Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February 1991

at-risk. Due to the dynamic nature of policy development, these numbers may change as policies are revised. This is especially relative to the potential inclusion of at-risk children in states' definitions and is discussed further in a later section of this paper.

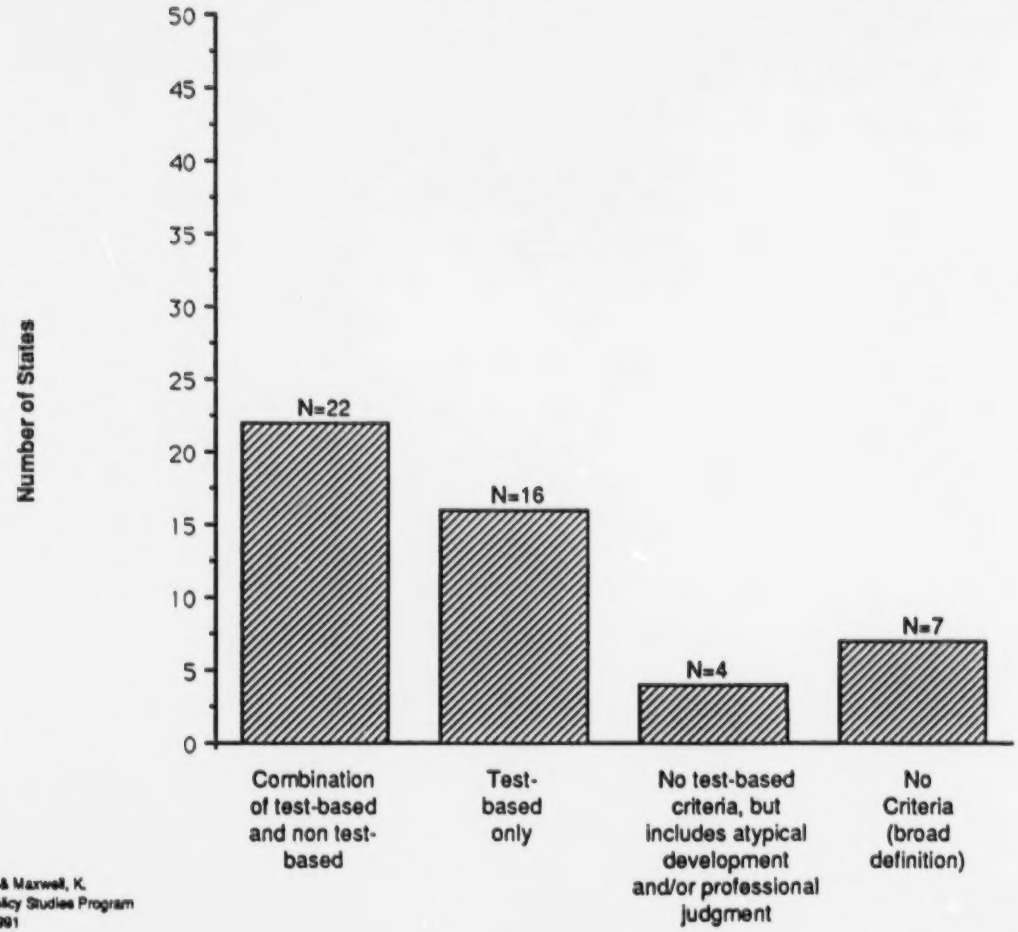
Approaches Used To Determine Developmental Delay

Once state policy makers have written a definition, there must be some way of determining just which children fit the definition and are eligible for services. The question facing states is how delayed must a child be in order to receive services. In many instances, the development of the eligibility criteria for services often raises controversy. In addition, the lack of adequate instruments and research in this area make policy development problematic and difficult (Harbin,1990; Meisels, 1988; Meisels & Provence, 1989; Simeonsson & Bailey, 1989). An analysis of the 49 state definitions reveals that approaches used to determine developmental delay vary among the states (see Figure 3).

Despite the requirement in Part H of IDEA to provide specific criteria, there were 7 states that did not include any specific criteria for determining delay. These states may still be formulating their policy and developing other components of their definitions; it is possible that later versions may include specific criteria. Of the 42 states that did delineate eligibility criteria, three approaches were used. Figure 3 presents the number of states utilizing each approach.

Test-based criteria only. Sixteen states indicated that children must exhibit a delay as measured by an instrument which yields a particular score (e.g., standard deviation, percent delay). Thus, for these states quantitative information is the only means of determining eligibility.

Figure 3: Approaches Used To Determine Delay (49 States Reporting)



Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February 1991

6

Eight states utilize only one type of score (e.g., standard deviation), while the other 8 states allow the use of more than one kind of score (e.g., standard deviation or percent delay) to determine eligibility. Allowing for the use of more than one type of score may be indicative of states' recognition that tests are scored differently (e.g., some tests yield standard deviations but not percent delay and vice versa). In order to address this variability in types of scores, states may have included more than one type of score which can be used to determine eligibility for developmentally delayed children. Two other states addressed this issue by stating that the eligibility criterion should be the score identified by the test manufacturer as indicative of delay. For example, if the test sets the criterion of 2.0 standard deviations as indicative of significant delay or disability, then that criterion would be used instead of the state arbitrarily setting or selecting a criterion.

Non-test-based criteria only. Four states have relied on the use of professional judgment and/or the documentation of atypical development only in determining eligibility. For these states, no quantitative information is needed to determine eligibility. Use of this approach is based on the assumption that either the tests available are inadequate to determine eligibility, or that there are no tests to determine the existence of a particular type of disabling condition for young children. The use of professional judgment and the documentation of atypical development also assumes that the professionals conducting the assessments and making the eligibility decision are knowledgeable and qualified.

Combination of test-based and non-test-based criteria. Twenty-two states have utilized both quantitative (e.g., test scores) and qualitative (e.g., use of professional judgment) means of determining eligibility. Using a combination of quantitative and qualitative information sources appears

to reflect the most recent knowledge regarding eligibility criteria for serving young children. As discussed earlier, the technical adequacy of instruments for assessing infants and toddlers is somewhat limited. Therefore, using only test scores may lead to the omission of children legitimately in need of services. Including a combination of information sources appears to maximize the likelihood of having a more accurate policy.

For the states using a combination approach, there were variations regarding the types of qualitative information acceptable and the circumstances in which non-test-based criteria (qualitative) could be used to determine delay. Seven states were using the documentation of atypical development as the only acceptable qualitative approach for determining delay. Thirteen states were using professional judgment as the only acceptable qualitative approach. Two states were including either the documentation of atypical development or the use of professional judgment within their eligibility criteria. For the states using the documentation of atypical development, Table 1 lists some of the descriptors included in states' definitions of atypical development.

For the states using professional judgment, there were three general ways of describing its use. First, most states (N=8) indicated in their policies that professional judgment should be used when standardized tests are not appropriate or not available. Second, 4 states indicated that professional judgment should be used only for a particular age range (e.g., birth to 12 months). Third, a few states (N=3) included professional judgment as an option for determining eligibility without describing the conditions under which professional judgment should be used. Clearly, there is some variability among states concerning the use of professional judgment as a means of determining eligibility.

TABLE 1: DESCRIPTORS FOR ATYPICAL DEVELOPMENT

diagnosed hyperactivity

attention deficit disorder

behavioral disorders

emotional disorders

delay or abnormality in achieving expected emotional milestones such as: pleasurable interest in adults and peers, ability to communicate emotional needs, and ability to tolerate frustration

persistent failure to initiate or respond to most social interactions

fearfulness or other distress that does not respond to comforting by caregivers

indiscriminate sociability

self injurious or unusually aggressive behavior

unconsolable crying

sleep disturbances

feeding difficulties

quality of developmental skills

significant gaps within or between the developmental areas

behavior patterns that may interfere with the acquisition of developmental skills

infant conditions that may interfere with parent-infant attachment such as: muscle tone anomaly, difficult temperament, dysfunctional state regulation, high or low sensory threshold, dysfunctional sensory processing

inability to build or maintain interpersonal relationships

reactive attachment disorder of infancy and early childhood

generally pervasive mood of unhappiness or depression

excessively aggressive or violent behavior

elective mutism (partial or complete)

oppositional disorder

Levels Of Delay

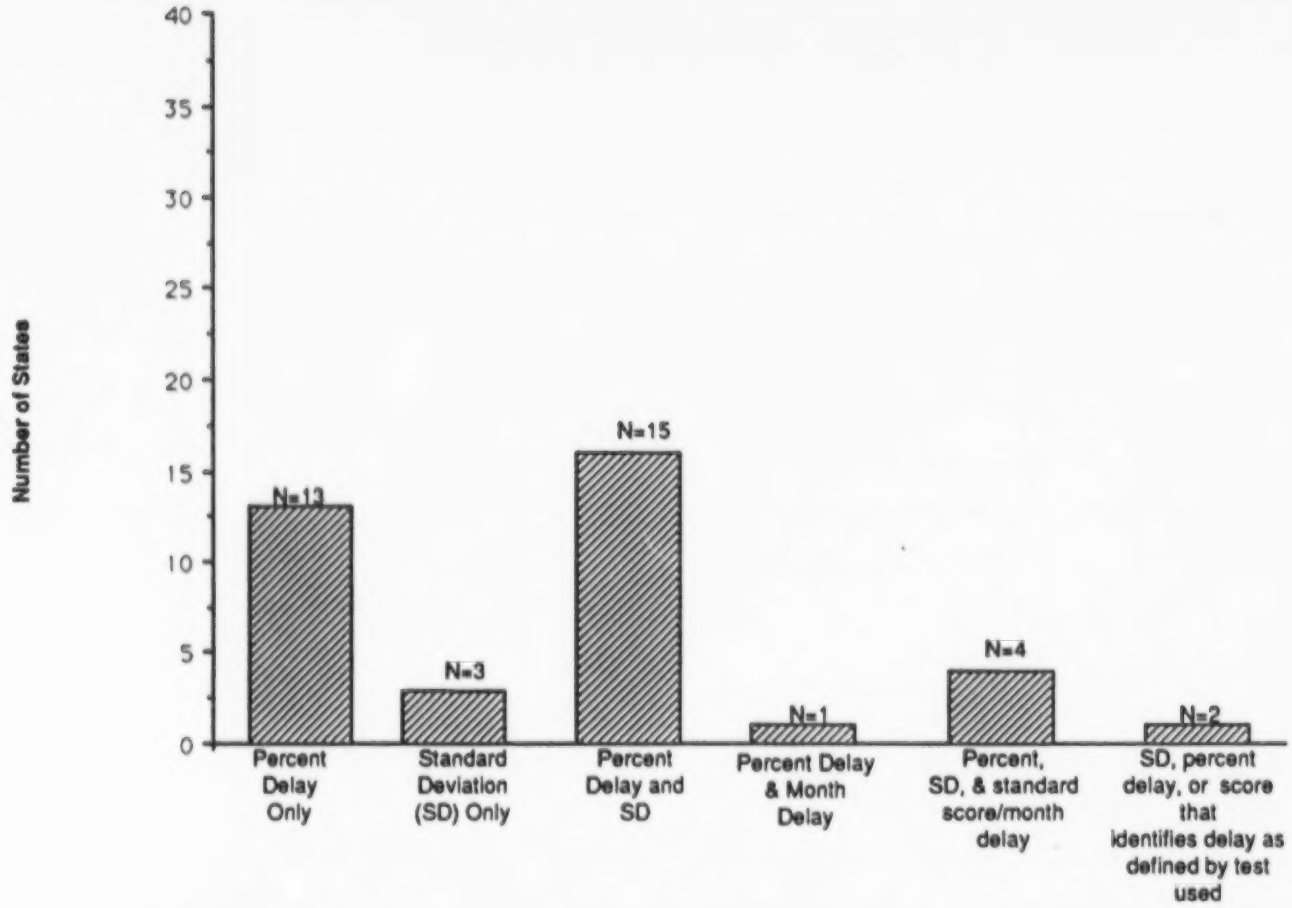
For states using tests in some way to determine eligibility (either the use of tests only or the use of tests in combination with non test-based approaches), there was variation in the level of delay required for eligibility. As indicated in Figure 4, states used different types of criteria for determining delay (e.g., percentages, standard deviations). Within each of these types of criteria, states use different levels (e.g., 15% delay, 25% delay, etc.) for determining eligibility. States also vary in the number of developmental areas in which the child must exhibit a delay. While all state policies specify criteria for determining delays in **one** area, some policies (18 states) specify a different set of criteria for determining delays in **two** or more areas. For instance, one state requires a delay of 2.0 standard deviations in one area of development or a delay of 1.5 standard deviations in two or more areas of development. Information regarding these variations in levels of delay is presented in Table 2.

The most frequently used test-based criterion is 25% delay in one or more areas of development (N=20). The second most frequently used criterion was 2.0 standard deviations in one or more areas of development (N=11).

Criteria Used To Determine Established Conditions

States are required to serve children who "have a diagnosed physical or mental condition which has a high probability of resulting in developmental delay" (IDEA of 1990, Section 1472 (1)). These conditions are referred to by many professionals as "established conditions." Forty-seven states defined established conditions in their eligibility policy. Most of these states (N = 39) included a list of specific conditions in their definition. In referring to the list of conditions, many of the definitions also included the phrase "but is not limited to the following." The use of this phrase leaves flexibility for other conditions to be accepted for eligibility. This type of flexibility provides an opportunity for other

Figure 4: Types of Criteria to Determine Developmental Delay (based on the 38 states using test-based criteria)



Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February 1991

14

TABLE 2: RANGES OF CRITERIA USED BY STATES TO DETERMINE DELAY

Areas of Development	Type of Criteria	Minimum	Maximum	Most Frequently Used
1 area	Percent	20%	50%	25%
	Standard Deviation	1.3	2.0	2.0
2 or more areas	Percent	15%	25%	25%
	Standard Deviation	1	1.5	1.5

Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February 1991

conditions to be added as data are made available or as professionals deem appropriate, according to their clinical opinion. However, it is also possible that this flexibility in the policy will result in even more diversity of interpretation of eligibility. Due to this flexibility, the conditions described in this section do not include every specific condition that constitutes eligibility, but should be thought of as the **examples** of established conditions included in states' eligibility policies.

The purpose of this section is to describe the established conditions listed within states' definitions. At this time, states are including a total of 120 different conditions under the established conditions category. The analysis also indicates that there is relatively little agreement among states as to which specific conditions constitute eligibility under this part of the legislation. There were 40 conditions that were selected by only 1 state; 42 conditions that were selected by 2 to 4 states; and 38 conditions that were selected by 5 or more states (see Appendix A). Thus, within the established conditions category, there was considerable variability among states with regard to what constitutes an established condition. For instance, one state considered fetal alcohol syndrome to be an established condition whereas another state did not.

In order to further describe the established conditions included in states' policies, a categorical system utilized in another CPSP study examining established conditions was adopted. These larger categories were then used to group the individual conditions listed by states in their eligibility policies. (See Appendix A for a list of the specific conditions included under each category). For some of these categories, agreement was relatively high among states. For instance, 97% of the states included some type of chromosomal anomaly or genetic disorder. However, for some categories, agreement remained relatively low with regard to the examples of conditions included in

state policies. For example, 23% of the states included some type of health concern related to family history. All of the categories of established conditions and the percentage of states including factors within each category are listed in Table 3.

Confusion Between Established Conditions and Biological Risk Factors

An additional issue revealed by the analysis indicated that states seemed to have difficulty differentiating between those conditions which are considered established conditions and those which fall into the category of biological risk. Some conditions such as toxoplasmosis were found under the category of established conditions in one state and under the category of biologically at-risk in another state. States' difficulty in differentiating between established conditions and biological risk factors is not surprising since the literature does not clearly differentiate between these two categories.

This confusion between the established conditions and biologically at-risk categories, as well as the variability within the established conditions category itself, illustrates the complexity of policy development inherent in the law. This complexity is further hindered by the lack of relevant information available in the literature. CPSP is currently conducting a separate study which is designed to help policy makers address the complex policy issues associated with the established conditions category.

Criteria Used To Determine At-Risk

As mentioned previously, CPSP analyzes policy documents that have been received from state policy makers. Due to the dynamic nature of policy development, these documents may have undergone revision as of this writing. State policy makers may also be discussing changes, such as excluding the at-risk category from their definition, but have not yet altered their written policy.

TABLE 3: CLUSTERS OF ESTABLISHED CONDITIONS

Cluster	Percent of States Including One or More Specific Conditions Under Each Cluster*
Chromosomal Anomalies or Genetic Disorders	97%
Neurological Disorders	85%
Sensory Impairments	82%
Congenital Malformations	82%
Inborn Errors in Metabolism	79%
Toxic Exposure	72%
Infectious Disease	44%
Severe Attachment and Other Atypical Developmental Disorders	41%
Health Concerns Related to Family History	23%

*The specific conditions within each cluster are listed in Appendix A.

Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February, 1991

Some Part H Coordinators have indicated that due to revenue shortfalls in their state, discussions have begun related to eliminating at-risk children from the definition in order to reduce program costs. When analyses were conducted in November, 1990, there were 23 states that included at-risk children in the written draft sent to CPSP. However, as a result of telephone calls from CPSP to the states including children at-risk, 11 state policy makers said they are still intending to serve at-risk children, 3 said they had definitely decided not to serve at-risk and sent a new draft policy for analysis, and 9 said they doubted that they would serve at-risk, but had no other policy document to send for analysis. For this report, then, the analysis of at-risk is based on the documents from those 20 states whose policy makers are still intending to serve at-risk children or whose policy makers doubted that they would serve at-risk children, but had no other written policy to be analyzed. Due to the dynamic nature of policy development for the at-risk category, the information provided in CPSP's at-risk analysis should be interpreted cautiously, since there are likely to be changes in this policy area.

If state policy makers decide to include children who are at-risk for developmental delays, they are compelled to determine which factors render children at-risk (Smith & Strain, 1988). As mentioned earlier, some states are including those children with biological risk factors only, or children with environmental risk factors only, while other states are including children with both types of risk factors (see Figure 2).

Biological Risk. Based on the analysis of the 19 states that included biological risk conditions in their definitions, a total of 99 different conditions were listed. The analysis also indicated that there was relatively little agreement among states as to which of these individual conditions place children at-risk. There are 52 conditions which were selected by only 1 state;

35 conditions which were selected by 2 - 4 states; and only 12 conditions which were selected by 5 or more states (see Appendix B). At the present time there appears to be minimal agreement among states concerning which particular conditions place a child at-risk biologically.

However, when the list of biological risk conditions was examined, clusters of similar risk conditions emerged. The conditions within each cluster addressed the same or similar issues (e.g., low birthweight), but varied in their definition of this specific condition. For example, one state included children with a birthweight of less than 1500g, while another state included children with a birthweight of less than 1000g.

Of the twelve clusters that emerged, agreement varied considerably. For instance, 79% of the states including biologically at-risk children included some level of low birthweight, while only 11% of the states included risk factors related to family disability. Appendix B lists the individual factors within each cluster. All of the clusters of biological risk factors and the percentage of states including factors within each cluster are listed in Table 4.

Like the established conditions category, however, some definitions of the biological risk category also included the phrase, "but is not limited to." Thus, the discussion earlier in this paper regarding the flexibility inherent in this phrase is also relevant to biological risk conditions.

Finally, 13 of the 19 states used a single factor approach to determine eligibility for children with biological risk conditions. That is, in order to be eligible for services, an infant or toddler would need to have only one of the conditions listed on the checklist (e.g., prematurity). The limited usefulness of single risk factors in predicting which children are likely to develop delays or disabilities has been documented in the literature (e.g., Kochanek, et al., 1987).

TABLE 4: CLUSTERS OF BIOLOGICAL RISK CONDITIONS

Cluster	Percent of States Including One or More Specific Conditions Within Each Cluster*
Low Birthweight	79%
Toxic Exposure	68%
Neonatal Intensive Care	63%
Prematurity	53%
Sensory Impairments	37%
AIDS	32%
Infectious Disease	32%
Small For Gestational Age	21%
Low Apgar	21%
Maternal Health Problems	21%
Intraventricular Hemorrhage	16%
Family Disability	11%

*The specific conditions within each cluster are listed in Appendix B.

Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
February, 1991

There were 6 states using multiple risk factors in determining eligibility for children at-risk for developmental delay.

Environmental Risk. An analysis of the factors selected by 16 states for placing infants and toddlers at-risk due to environmental conditions revealed that states have included in their definitions a total of 58 different environmental risk factors. There were 27 conditions which were selected by only 1 state; 26 conditions which were selected by 2 - 4 states, and 5 conditions which were selected by 5 or more states (see Appendix C). Again, there appears to be minimal agreement among states as to which specific conditions place children at-risk.

However, as was the case with biological risk conditions, when the list of environmental risk conditions was examined, clusters of similar risk conditions emerged. Of the nine clusters that emerged, agreement varied considerably. For example, 88% of the definitions included some type of family disability while only 19% included risk factors related to low income. The individual factors comprising each of the clusters are listed in Appendix C. All of the clusters and the percentage of states including conditions under each cluster are listed in Table 5.

Ten of the 16 states used a single factor approach to determine eligibility for children with environmental risk factors. Six states indicated that a child must have multiple risk factors in order to be eligible for services. Within these 6 states, children are judged eligible for services under the at-risk category if they have more than one risk factor. The most common number of factors designated by these states was 3 or more risk factors. For these 6 states, multiple risk factors may be all biological, all environmental, or a combination of the two.

TABLE 5: CLUSTERS OF ENVIRONMENTAL RISK CONDITIONS

Cluster	Percent of States Including One or More Specific Conditions Within Each Cluster*
Family Disability	85%
Child Abuse or Neglect	75%
Family Dysfunction or Disorganization	62%
Parental Age	62%
Parent-Child Interaction	38%
Child-Related Health Issues	38%
Parental Education	25%
Low Income	19%

*The specific conditions within each cluster are listed in Appendix C.

Harbin, G., & Maxwell, K.
Carolina Policy Studies Program
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One state used a combination of single and multiple risk factors for determining eligibility. This state listed some single risk factors which were sufficient for determining eligibility (e.g., parental retardation or maternal HIV positive). A child could also be judged eligible if s/he had three or more risk factors from a separate list (e.g., low birth weight, prematurity, and adolescent parent). Thus, this state recognized different weightings of risk factors: those which by themselves place a child at risk and those which, combined with others, place a child at risk.

DISCUSSION

Results of this analysis indicate that state policy makers are making progress in their development of a definition of developmental delay, as required by Part H of IDEA. Almost all of the states have developed a definition, but only about one-third of the states have received official approval for their definitions.

Throughout the complex process of developing eligibility policy, state policy makers hope that sound policy will be developed. As discussed earlier, sound policy should be (a) empirically based on research reflecting the field's most current knowledge, (b) technically sound in regard to psychometric issues, and (c) accurate in that it identifies all of the children who need services, but does not incorrectly identify those not in need of services (Harbin, 1990).

Even though state policy makers are working toward the development of sound policy, states' eligibility policy in general often fails to meet these criteria. In a previous report by Harbin, Terry, & Daguio (1989) four issues were raised which indicated that states had not met the criteria for sound policy.These four issues were: (a) eligibility was primarily test-driven, (b) there was little agreement across states as to the specific criteria to be used to determine

eligibility, (c) there was confusion between what constitutes an established condition vs. a biological risk condition, and (d) states primarily used a single risk factor instead of multiple risks in determining eligibility under the at-risk category. Overall, current analysis indicates that these four problems continue to plague current eligibility policy.

First, although it is heartening to see the increased number of states including a combination of quantitative and qualitative criteria to determine eligibility, still one-third of the states continue to rely on test scores as the **only** means of determining eligibility. Relying solely on tests is problematic due to the psychometric properties of the tests themselves and the difficulty of detecting some delays using traditional evaluation techniques. Therefore, including a non-test-based approach, such as the use of professional judgment or the documentation of atypical development, enhances the likelihood of identifying those children legitimately in need of services.

However, these non-test-based approaches allow for a wide range of possible interpretations of assessment results and may lead to wide disparities in eligibility, unless professionals are adequately trained and given some direction in policies. Professional judgment is only as good as the skills and qualifications of the person making that judgment. Thus, there are both strengths and weaknesses associated with non-test-based approaches, just as there are strengths and weaknesses associated with the use of tests.

Second, states using test-based criteria identify various levels of delay necessary for eligibility. As noted in Table 2, for example, the continuum of percent delay criteria selected by states ranged from 20% delay to 50% delay in one or more areas. As a result of this variability in states' eligibility policies, it is inevitable that children may be identified as eligible for services in one state but not in another.

In the third problem area, there continues to be a lack of agreement concerning which conditions are included in states' policies regarding established conditions, as well as biological and environmental risk factors. For instance, one state may include fetal alcohol syndrome under established conditions and another state may not. Thus, children with particular conditions, such as fetal alcohol syndrome, may receive services in one state but not in another state. There also is confusion between what constitutes an established condition and which conditions place children at biological risk. States disagree as to whether a particular condition (e.g., toxoplasmosis) is an established condition or a biological risk condition. Since the literature provides little guidance in this area, the confusion and lack of agreement is understandable. However, this variability may result in children receiving services in one state but not in another.

The fourth policy issue relates to the use of multiple risks in determining eligibility under the at-risk category. As in the previous analyses, most states which intend to serve children at-risk rely on the use of a single factor to determine eligibility. As discussed in prior reports (Harbin, Terry, & Daguio, 1989; Harbin, Gallagher, & Terry, 1991), this practice is contrary to current research which indicates that as risk factors multiply, their combined effect is greater than the effect of any one of them alone (Sameroff & Chandler, 1975; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987; Werner, 1986).

The use of a single factor approach also increases the cost of services because more children will be identified through this approach than through an approach which uses multiple factors. Due to the economic difficulties in many states, policy makers are faced with the decision of whether to include at-risk children. While states have the option of dropping this category from their

policies, another option for those states that are committed to serving children at risk would be to utilize a multiple factor approach in defining these children.

These critical issues in the development of eligibility policy should be considered by state policy makers, as well as by those individuals who advocate for quality policies and services. For state policy makers who are still in the process of reviewing and revising their eligibility policy, the information presented in this report, as well as information presented in the literature (Meisels & Provence, 1989), may be useful in revising current eligibility policy so that it avoids the problems described in this report.

The task of policy development is dynamic. It is an on-going process of development, implementation, evaluation, and revision. Thus, those states that have already received approval for their eligibility policy would be wise to develop procedures to evaluate the effectiveness of their policy. It is hoped that information presented here will be helpful in evaluating current policy and making necessary revisions.

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APPENDIX A: SPECIFIC CONDITIONS WITHIN THE ESTABLISHED CONDITIONS CLUSTERS

(the number in parenthesis is the number of states including each specific condition)

Chromosomal Anomalies or Genetic Disorders

*Chromosomal anomalies/genetic disorders or syndromes/single gene defects (35)
*Down Syndrome (24)
*Fragile X Syndrome (9)
*Turner Syndrome (5)
*Cystis Fibrosis (4)
*Cri-du-Chat Syndrome (2)
*Klinefelter's Syndrome (2)
*XO, XXX, XXXX (2)

Congenital Malformations

*Microcephaly (19)
*Spina Bifida (17)
*Hydrocephaly (11)
*Cornelia de Lange (10)
*Macrocephaly (9)
*Congenital malformations/anomalies (5)
*Cleft palate/lip (5)
*Congenital dislocation of hip (1)
*Congenital malformation of brain (1)
*Cyanatic congenital heart disease (1)
*Osteogenesis imperfecta (1)

Sensory Impairments

*Sensory disorders/impairments (32)
*Serious otitis media (2)

Inborn Errors in Metabolism

*Metabolic disorders (17)
*Inborn errors in metabolism (11)
*Child PKU (4)
*Tay Sachs Disease (3)
*Hypothyroidism (3)
*Diabetes (3)
*Hurler Syndrome (2)
*Endocrine Disorder (1)

Infectious Disease

*Congenital infections/infectious disease (11)
*Congenital Cytomegalovirus (9)
*AIDS or HIV (8)
*Congenital Rubella (5)
*Congenital Toxoplasmosis (5)
*Neonatal meningitis (3)
*Congenital Syphilis (2)
*Disorder secondary to congenital infections (1)
*Congenital Herpes (1)

Neurological Disorders

*Cerebral Palsy (17)
*Neurological disorders/impairments (12)
*Seizure disorders/Neonatal seizures (12)
*Neuromotor/Muscle disorder (8)
*Intracranial hemorrhage (8)
*Muscular Dystrophy (8)
*Head or spinal cord trauma/head trauma with residual neurological deficits (6)
*Epilepsy (6)
*Malignancy or Congenital anomaly of brain/spinal cord (5)
*Prader Willie Syndrome (4)
*Central Nervous System maliganancy (4)
*Neurological disorder with unknown etiology (2)
*Central Nervous System dysfunction/ disorders (2)
*Neural tube defects (2)
*Intraventricular hemorrhage (2)
*Communication disorder related to neurology or musculoskeletal problem (1)
*Central nervous system syndrome associated with intrauterine infections (1)
*History of prenatal, perinatal, neonatal, or early developmental events suggestive of biological insults to the developing central nervous system and which either singly or collectively increases the probability of developing a disability/delay on a medical history development (1)
*Abnormality in central nervous system development (1)
*Hypoxic/Ischemic Encephalopathy and at term (1)
*Severe grade III intraventricular hemorrhage with hydrocephalus or grade IV intraventricular hemorrhage (1)

APPENDIX A (continued)

Health Concerns Related to Family History

*Maternal AIDS (7)
*Children of developmentally disabled parents (1)
*Maternal PKU (1)
*Parents who are mentally ill (1)
*Parents who have sensory impairments(1)

Toxic Exposure

*Fetal Alcohol Syndrome (21)
*Severe toxic exposure/lead poisoning (6)
*Effects of toxic exposure including fetal alcohol syndrome, drug withdrawal, and exposure to chronic maternal use of anticonvulsants, antineoplastics, and anticoagulants (3)
*Drug related syndromes (3)
*Addiction at birth (2)
*Exposure to drugs or teratogens known to cause birth defects or developmental problems (2)
*Maternal history of drug use (1)
*Maternal drug use (1)
*Prenatal drug exposure (1)
*Significant fetal exposure to teratogens (1)

Severe Attachment Disorders

*Severe attachment or other atypical developmental or phychosocial disorders (11)
*Autistic disorder (9)
*Reactive attachment disorder (6)
*Atypical pervasive developmental disorder (3)
*Hyperactivity or attention deficit disorder (3)
*Generally pervasive mood of unhappiness or depression (2)
*Excessively aggressive/violent behavior self-injury (2)

APPENDIX B: SPECIFIC CONDITIONS WITHIN THE BIOLOGICAL RISK CLUSTERS

(the number in parenthesis is the number of states including each specific condition)

Low Birthweight
- *Birthweight less than 1500g (9)
- *Birthweight less than 1000g (2)
- *Birthweight less than or equal to 1800g (2)
- *Birthweight between 1000g and 1500g (1)
- *Low birthweight (1)
- *Birthweight less than 2001g (1)

Toxic Exposure
- *Lead poisoning/toxic substances (7)
- *Chemically dependent mother/maternal prenatal substance abuse (6)
- *Mother exposed to medications known to cause brain damage/developmental delay (2)
- *Exposure to teratogens and drugs known to cause brain damage/developmental delay (2)
- *Exposure to teratogens and drugs known to cause birth defects and findings of effects by a licensed medical doctor (2)
- *Mothers treated with medications known to cause a developmental risk (1)
- *Exposure to teratogens (1)
- *Prenatal exposure to teratogens or documented exposure to narcotics, cocaine, and other drugs that have a probability/high risk of adverse developmental consequences (1)
- *Fetal alchohol syndrome (1)
- *Mothers use of anticonvulsant, antineoplastic, or anticoagulant drugs (1)

Neonatal Intensive Care
- *Neonatal seizures, including perinatal seizures (7)
- *Complications at birth/neonatal complications/severe perinatal complications (7)
- *Neonatal intensive care for 7 or more days (2)
- *Admitted to NICU (2)
- *NICU for more than 5 days (1)
- *ICU for 10 or more days (1)
- *NICU complicated by psychosocial and/or health problems (1)

Sensory Impairments
- *Chronic otitis media (3)
- *Suspected hearing, speech, or visual impairment including a family history of such conditions (2)
- *Chronic otitis media with effusion (1)
- *Sensory impairments (1)

Infectious Disease
- *Congenital infections such as neonatal meningitis (4)
- *Prenatal infections (2)
- *Brain infections/disease (2)

Small for Gestational Age
- *Small for gestational age (3)
- *Small for gestational age --less than 10th percentile (1)

Maternal Health Problems
- *Maternal infection or illness during pregnancy (3)
- *Maternal PKU (2)
- *Diabetic mother (1)

Intraventricular Hemorrhage
- *Intraventricular Hemorrhage grade III or IV (2)
- *Intracranial hemorrhage (1)

Family Disability
- *Family medical/genetic history characteristics (1)
- *Family history of childhood deafness and/or blindness (1)

Prematurity
- *Premature less than 37 weeks (7)
- *Premature less than 32 weeks (7)
- *Premature less than 26 weeks (1)
- *Premature less than 33 weeks (1)
- *Premature (1)

AIDS
- *Child AIDS/HIV positive (4)
- *Positive maternal HIV (4)

Low Apgar
- *Apgar 0-3 at 5 min. (2)
- *Apgar less than 6 at 5 min (1)
- *Apgar less than 5 at 5 min (1)

APPENDIX C: SPECIFIC CONDITIONS WITHIN THE ENVIRONMENTAL RISK CLUSTERS

(the number in parenthesis is the number of states including each specific condition)

Child Abuse or Neglect
- *Abuse or neglect in the home (10)
- *Open or confirmed protective services investigation (1)
- *Known history of child abuse or neglect (1)
- *Atypical or recurrent accidents involving child (1)

Family Dysfunction or Disorganization
- *Parental or familial substance abuse/chemical dependency (10)
- *Significant family social disorganization (1)
- *Acute family crisis (1)
- *Chronically disturbed family interaction (1)

Family Disability
- *Parental retardation/developmental disability/mental illness (9)
- *Parental or caretaker disability/health problem/ chronic illness (3)
- *Inability to perform parenting due to impairment in psychological or interpersonal functioning (2)
- *Developmental disability of parent which interferes with caregiving (2)
- *Disabled family member (1)
- *Parent or primary caregiver with a developmental history of loss and/or abuse (1)
- *Severe parenting risk including partents' mental or developmental disability or substance abuse (1)

Parental Age
- *Adolescent parent (6)
- *Parent younger than 15 (2)
- *Parent age young (1)
- *Parent younger than 16 (1)

Child-Related Health Issues
- *Poor nutrition (2)
- *No well-child care by 4 months (2)
- *Exposure to poisons and teratogens (1)
- *Lack of routine well-child care (1)
- *Four or fewer obstetric visits prior to the 34th week of pregnancy or prenatal care was initiated in the 3rd trimester (1)

Parent-Child Interaction
- *Poor parent-infant attachment/bonding (3)
- *Mother-infant separation/parent-child separation (3)
- *Lack of parenting skills/difficulty in providing basic parenting (2)

Health Issues
- *Close occurring pregnancies (1)
- *Parental or familial stress (1)
- *Parental chronic illness limiting caregiving ability (1)
- *Maternal HIV positive (1)

Parental Education
- *Parents lack of high school eduction (1)
- *Maternal education of 10 years or less (1)
- *Lack of Parental education (1)

Low Income
- *Low income/economic disability (2)
- *Family income up to 200% of federal poverty guidelines (1)